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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,939	01/23/2001	Bronwyn C. Rice	RIE600	9740

7590 08/01/2005	EXAMINER
Ingrid McTaggart	GRAYSAY, TAMARA L
534 S. E. 58TH AVENUE	

ART UNIT	PAPER NUMBER
3623	

PORTLAND, OR 97215-1824

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
Office Action Summary	09/768,939	RICE, BRONWYN C.
	Examiner	**Art Unit**	
	Tamara L. Graysay	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-13 and 21-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-13 and 21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 8-13 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Starkey (US-6745200) in view of White (book, How computers work).

NOTE: The recitation of nonfunctional descriptive material, which is directed to the content

of information, not structure or an action or step, does not render nonobvious that which is

otherwise obvious.

a.   Regarding claims 8, 10, and 12 Starkey discloses a communication system having

several databases (modules). The first client database (resident component of People

Module 205, e.g., C.5, L.15-20) includes information related to a first client user

(resident) including dietary preferences (preferences of the residents and exhaustive

definition of the personal needs and desires of the residents, e.g., C.9, L.19-35; resident's

medical needs, C.9, L.30); a second chef database (staff component of People Module

205, e.g., C.5, L.20-27) including information about the cook (style of cooking, C.9,

L.39-60); and, a communication apparatus (a computer system architecture including a

local area network or wide area network, e.g., C.3, L.16 – C.4, L.55) that allows the users

to access the information contained within the databases.

Starkey is not specific as to the information that is entered into the second chef

database (staff component of the People Module 205) as it relates to the chef or cooking

staff.

However, Starkey does read that the Standards Module 206 includes cooking style

(C.9, L.39-60). The fact that a cooking style can be selected for a particular planned

event would teach that a specific cooking style would be available to the user who is

planning the event.

Therefore, it would have been obvious to modify the chef (staff) information of

Starkey to include the particular training and cooking style of the cooking staff or chef in

order to accommodate a particular preference of cooking style that is preferred by a client

or resident, or required for a particular event that is planned.

Although Starkey is for a first client user and a second chef user being at the same

location (estate household, e.g., C.2, L.38-48; C.5, L.1), the claimed plurality of locations

accessible by more than one type of user is simply a computer network. A computer

network is an old and well known expedient as evidenced by White.

White teaches a plurality of computers connected via a network, i.e., a local

network or Internet to permit access to information from various locations by various

users.

Therefore, it would have been obvious to modify the personal computer of

Starkey to include a network of computers, having software, for accessing information

stored in a computer system at various locations in the facility, not just a single location

for the purpose of user convenience.

b. Regarding claim 9, the Starkey communication system includes scheduling software
(Events Module 204).

c. Regarding claim 11, Starkey discloses a Guest Visit Example (C.11, L.16-54) in order
to demonstrate an Event 204 (which includes a series of activities). The activities are
subdivided into components that are planned by cross-correlation of the information
contained in the various databases (Modules). The food element of an event is described
as having an impact on a cook and purchaser, for example. Also, regarding claim 11, the
personal preferences and food type are cross-correlated with an inventory database (the
supplies on hand) for example. Further, regarding claim 11, Starkey discloses that the
communication system includes an inventory database (Household Inventory Module
202, e.g., C.5, L.42) that includes the contents (C.8, L.47-57) at the estate.

d. Regarding claim 13, Starkey discloses a modem 154, which infers use of a telephone
for accessing the network on which the communication system operates.

e. Regarding claim 21, Starkey discloses hardware, i.e., a persona computer.

f. Regarding claim 22, Starkey discloses at least one software program, i.e., Events
Module 204.

g. Regarding claims 23, 24, and 27, the claimed computer network and software is met by the Starkey and White combination as discussed with regard to claims 8 and 10, above.

h. Regarding claim 25, the examiner takes Official notice that the number of computers and their association to each other (set(s) of computers) is a matter of design choice that is within the level of ordinary skill of an information technology designer in the information technology field of endeavor. A reason for using such a design choice would be based on the user authority level, a user characteristic, or any other feature. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the computer network of Starkey and White, as applied to claim 23 above to include a set of computers for each group of users, in order to simplify formatting of the information and accessibility of the information stored in the computer system.

i. Regarding claim 26, White further teaches the use of a hub network system that includes a central station connecting to several nodes (p.336-337). An administrator would use this type of arrangement, for example, to control flow of information or data among the nodes or computers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the computer system of Starkey and White to include a central computer at a third location in order to provide administration to control information that is passed among the computer users.

Response to Arguments

2.   Applicant's arguments with respect to claims 8-13 and 21-27 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

        Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728.
The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Tariq Hafiz, can be reached on (571) 272-6729. The fax phone number for the
organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only. For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlg
20050725

SUSANNA M. DIAZ
PRIMARY EXAMINER

AU 3623

	Application/Control No.	Applicant(s)/Patent Under Reexamination
	09/768,939	RICE, BRONWYN C.
	Examiner	Art Unit	
	Tamara L. Graysay	3623	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	White, How computers work, millennium edition, 1999, ch.37, p.330-339 (6 pages)
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

How Computers Work, Millennium Edition
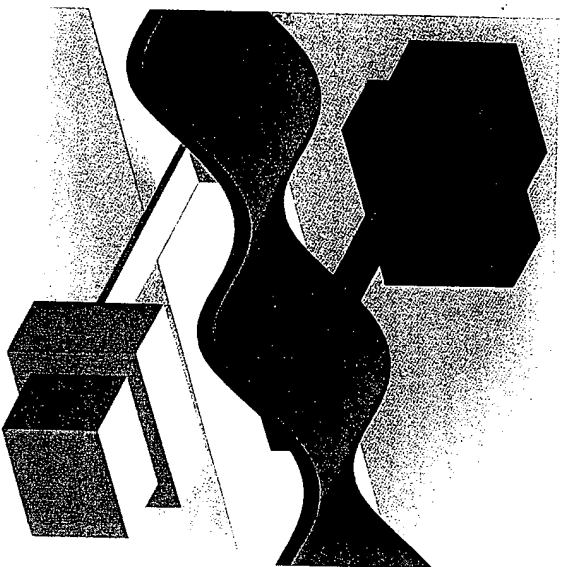
Thank goodness for children who always ask questions.
For Shannon and Michael and those who come after.
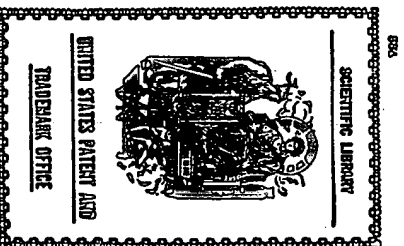
C H A P T E R

37

How Local Area Networks Work

A *local area network* (LAN) is, for many people, the entry point to the Internet. A LAN physically links several PCs to each other and often to a mainframe or minicomputer. This is accomplished with a variety of materials—twisted-wire cables, fiber optics, phone lines, and even infrared light and radio signals.

Whatever the technology, the goal is the same—to send data from one place to another.

Most often the data is in the form of a message from one computer to another. The message may be a query for data, the reply to another PC's data request, an instruction to run a program that's stored on the network, or a message to be forwarded to the Internet.

If the data or program that the message asks for isn't on the Internet, it may be stored on a PC used by a coworker on the network, or on a *file server*, which is a specialized computer. A file server is usually a high-performance PC with a large hard drive that is not used exclusively by any individual on the network. Instead, it exists only to serve all the other PCs using the network—called *clients*—by providing a common place to store data that can be retrieved as rapidly as possible by the clients. Similarly, a network may include an Internet server that links the LAN to the Net. CD-ROM jukebox servers, or print servers that everyone on the LAN can use for printing. A print server is a PC connected to a printer, or it's network printer that can be connected to a network without an intervening PC.

If a network does not have a dedicated server, it is a *peer-to-peer* network. In a peer-to-peer network, each individual's PC acts as a server to other PCs—its *peers*—on the network and is also a client to all its peers acting as servers.

The network must receive requests for access to it from individual PCs, or *nodes*, linked to the network, and the network must have a way of handling simultaneous requests for its services. Once a PC has the services of the network, the network needs a way of sending a message from one PC to another so that it's only recognized by the node it's intended for and doesn't pop up on some other unsuspecting PC. And the network must do all this as quickly as possible while spreading its services as evenly as possible among all the nodes on the LAN.

In this chapter we'll look at the most common types of network, and the works of the most common LAN configuration, ethernet.

How Servers, Clients, and Peer-to-Peer Work
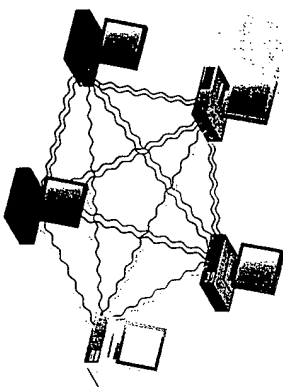
Client-Server Networks

1 A *local area network* (LAN) is made up of *nodes*, usually two or more computers in the same building that are linked together with wires or radio signals so that files can move among the computers. In a *client-server network*, one central computer is the *file server*. The server contains programs and data files that can be accessed by other computers in the network. Servers are often faster and more powerful than personal computers, running a *network operating system*, or *NOS*, such as Windows NT, Unix, Linux, or Novell NetWare. A NOS manages the movement of files and the network's security by maintaining lists of users, their passwords, and the drives and directories for which a user has been given access privileges. A server is also called a *host computer*.
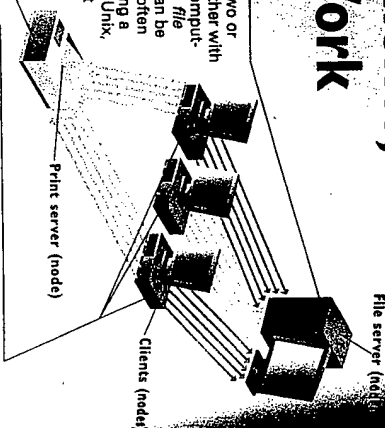
2 Some servers specialize in functions other than passing out files. A *print server* allows everyone on a network share a printer. The printer can be attached to a computer on the network; some printers are designed for network use can be connected directly to the network without a host PC. Other specialized servers provide shared access to the Internet, banks of CD-ROM drives, and tape backup. Some servers specialize in running programs that are designed for a network-wide use, such as an email or database server.

3 Personal computers attached to a server are the *clients*. Clients run the gamut from *fat clients*—computers that run most programs from their own hard drives, and use a minimum of network services—to inexpensive *thin clients* that may have no hard drive at all. They run programs and graphics using their own microprocessor but depend entirely on a server to run programs and store data files. A *dumb terminal* is a monitor, keyboard, and the bare minimum of hardware needed to connect them to the network. It uses the server's microprocessor to perform all functions.

Print server (node)

File server (node)

Clients (node)

Peer-to-Peer Networks

In a *peer-to-peer* network, there is no central server. Instead, all computers on the network act as servers to every other node. At the same time, all computers on the network act as clients to all the other PCs. This is the simplest type of network to install. Windows 98 comes with the software to set up a peer-to-peer network.

Wide-Area Network (WAN)

When components of a network are spread among several buildings, it becomes a *wide-area network*. Chunks of the network in different locations may be connected by phone lines, T-1 or T-3 connections, leased phone lines, microwaves, or the Internet itself. One way to use the Internet for a WAN is through Windows' Virtual Private Network, software that uses heavy encryption to maintain privacy among Internet-connected PCs that look as if they were connected together directly.
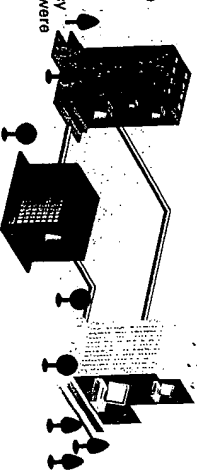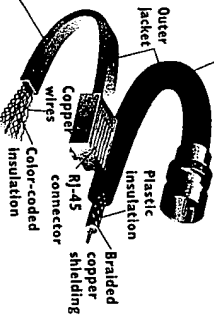
How Networks Connect
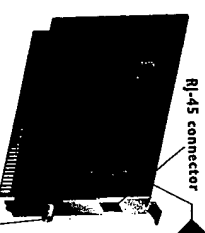
1 Each client and server on either a peer-to-peer network or a server-based network makes a connection through a *network interface card* (NIC). The most common type of NIC is an *Ethernet card*. Ethernet is not a single product, but rather a technical standard developed for network communications by Xerox, DEC, and Intel, and adopted by the rest of the computer community. The most commonly installed Ethernet systems are called *10BASE-T* and provide transmission speeds up to 10Mbps. *Fast Ethernet*, or *100BASE-T*, provides up to 100 a second. Gigabit Ethernet, although not yet common, provides up to 1,000 megabits a second (1 gigabit or 1 billion bits a second). For portable computers, the NIC may be in the form of a PC Card. (Network connections can also be rigged through a serial port or universal serial port, but this is not yet common.)
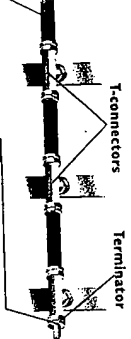
RJ-45 connector

Coaxial Cable

2 From the NIC, data may be sent along *BNC coaxial cable*, like that used for cable television cable. (BNC stands for *Bayonet Neill-Concelman*, a fact you will not be quizzed on.) Coaxial cable is most often found in 10BASE-T, peer-to-peer networks.

Coaxial connector

Outer jacket

Plastic insulation

Copper wires

RJ-45 connector

Braided copper shielding

Color-coded insulation

3 Computers connected with coaxial cable are daisy chained in series. A signal sent to any computer travels along the same cable, through T-connectors, to all computers no matter which node it's intended for. This is the least expensive way to connect a peer-to-peer network. But if the connection if broken anywhere along the cable, communications among all computers may be disrupted.

T-connectors

4 At the last node on either end of the chain, the wiring ends with a *terminator*, a simple closed metal connector that absorbs the signals so they are not reflected back along the cable.

Terminator

Twisted-Pair Wiring

5 Or, the NIC may be connected along *twisted-pair* wire through a *RJ-45* connector, which resembles the common RJ-11 phone jack. (RJ stands for *registered jack*.) An outer jacket encloses four pairs of insulated wire that are twisted with a different number of turns per inch. The twists cancel out electrical noise from adjacent pairs of wire and from motors and other electrical devices in the same building.

6 Each node on the network has a separate twisted-pair cable that connects the computer to a central *hub*, a device that lets the signals from any one computer travel to any other node on the network. Any one of the connections may be broken without affecting the others. Twisted-pair connections may be either 10BASE-T or 100BASE-T. Other ways of connecting computers in a network include optical cable, and existing phone and electrical wiring.

How an Ethernet Network Works

1 All *nodes*, clients and servers, on an Ethernet network—also called a *bus network*—are attached to the LAN as branches off a common line. Each node has a unique address. When a node—a PC, file server, or print server—needs to send data to another node, it sends the data, or messages, through a network card installed in an expansion slot. The card listens to make sure that no other signals are being transmitted along the network. It then sends its message to another node through the network card's *transceiver*. Each node's network connection has its own transceiver.
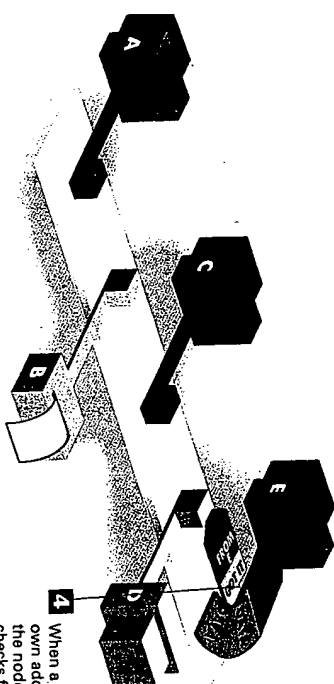
Ethernet bus
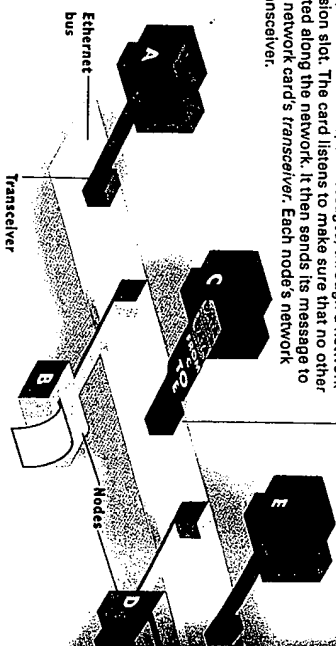
Transceiver

Nodes

2 The transceiver broadcasts the message in both directions so that it will reach all other nodes on the network. The message includes the addresses of the message's *destination* and *source*, *packets of* data to be used for error-checking, and the data itself.
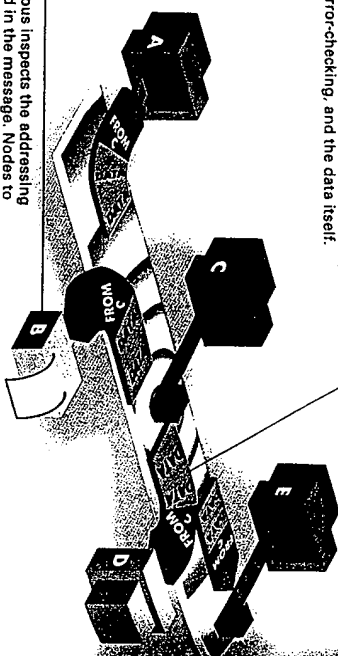
**3** Each node along the bus inspects the addressing information contained in the message. Nodes to which the message is not addressed ignore it.

4 When a node detects its own address in a message, the node reads the data, checks for errors, and sends an acknowledgment to the sender, using the sender's address, which was included as part of the incoming message.

5 When two nodes send messages simultaneously, the collision of the two messages creates a recognizable electrical interference pattern that travels along the bus and is detected by the senders.
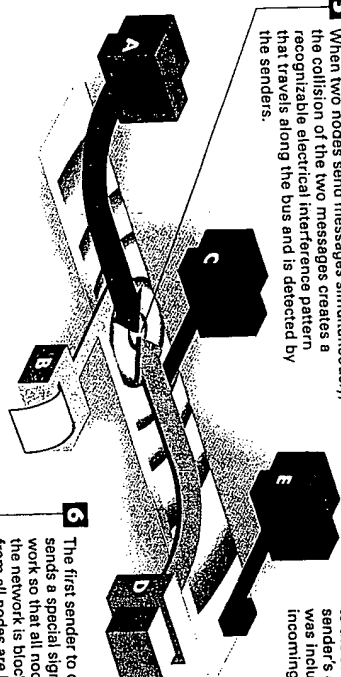
6 The first sender to detect a collision sends a special signal that jams the network so that all nodes will know that the network is blocked. Transmissions from all nodes are halted, and each node waits a random length of time before trying to resend its message. The process repeats itself until one of the nodes sends its message without encountering another node's message.
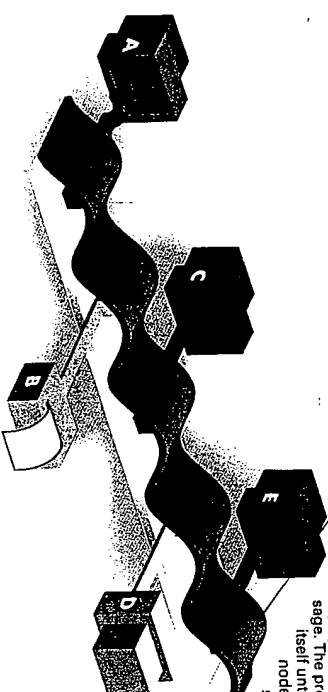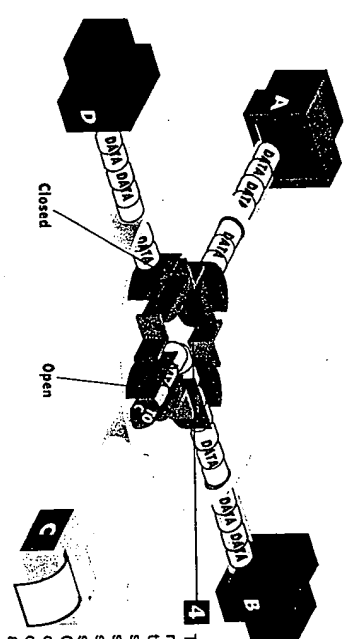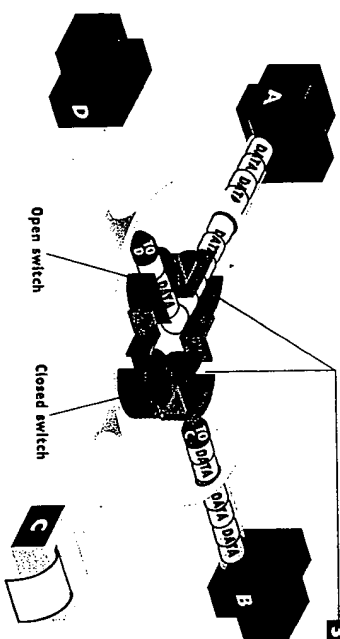
How a Hub Network Works

1 Nodes in a star net-work configuration are attached to sepa-rate lines, all of which lead to the same *hub*, or central station. The central station con-tains switches to connect any of the lines to any other line.
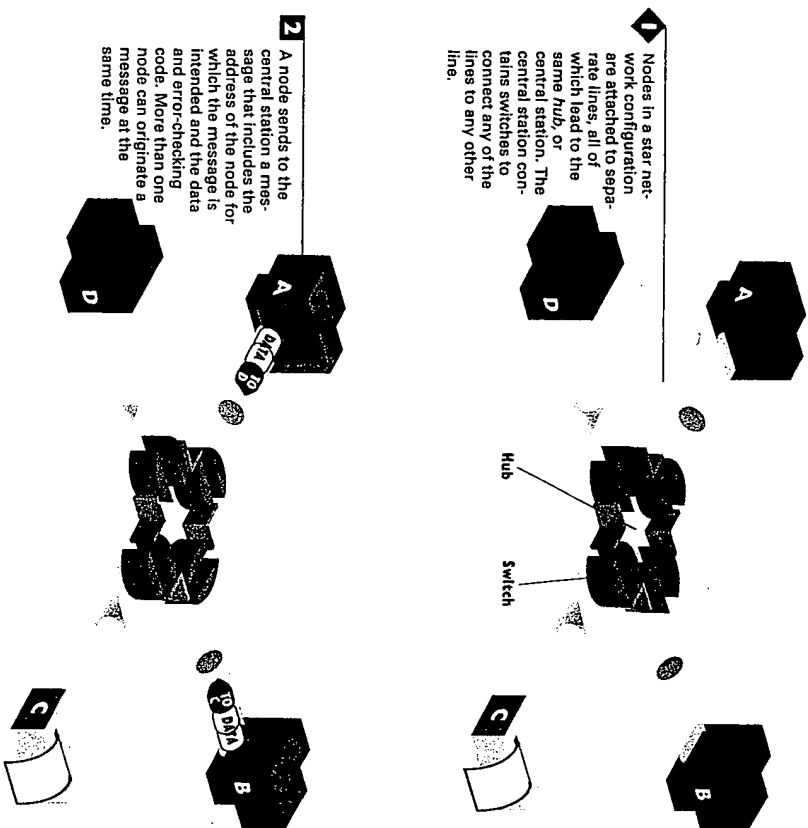
2 A node sends to the central station a mes-sage that includes the address of the node for which the message is intended and the data and error-checking code. More than one node can originate a message at the same time.

Hub
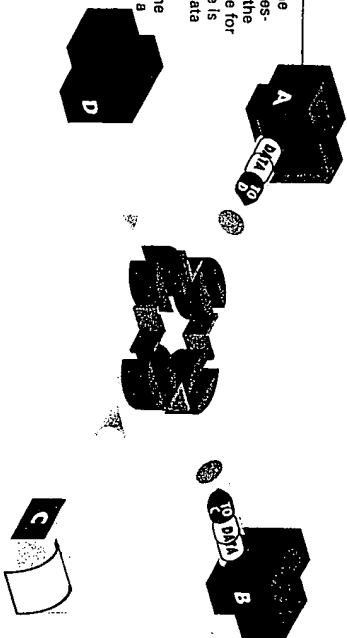
Switch

3 The switching station regularly polls each node connected to it. By taking turns open-ing and closing the switches, the station prevents any mes-sages from colliding.

Open switch

Closed switch

4 To prevent any one of the nodes from monopolizing the network, the switching station allows only a small portion of one mes-sage to pass through the switches at one time. Other messages are put on hold until the station comes around to them again.
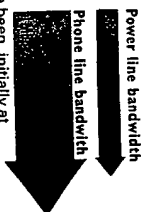
Closed

Open

How Phone and Power Line LANs Work

1 Networks that work over existing electrical wiring or telephone wires use radio frequency waves that spread through all the wiring in either the phone or electrical systems. The variations on the technologies may use on/off pulses or shift between two different frequencies to represent bits of data. The data signals can share wires used for electrical or phone because the networks operate at frequencies higher than 2MHz. Phone conversations operate between 20Hz and 2.4KHz, power lines cycle at 60Hz in the U.S.
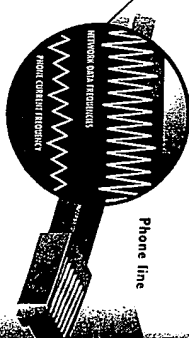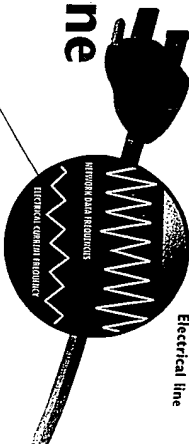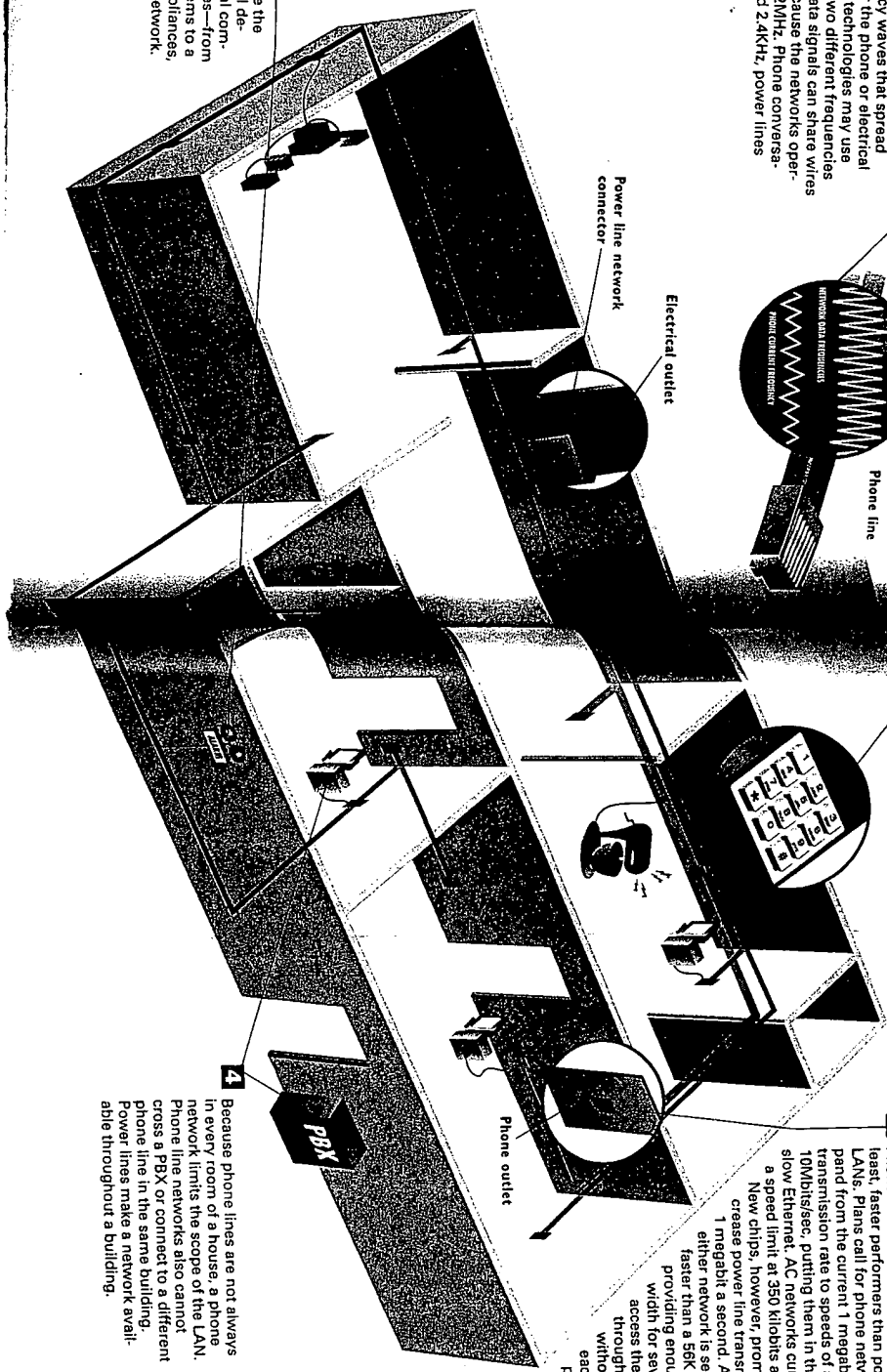
2 Because other uses of the lines dramatically affect their electrical characteristics, both networks must adapt instantly to changes in current or voltage. By avoiding the frequencies involved in electrical current and phone signals, data is not contaminated by electrical noise on the lines. Phone conversations, fax transmissions, and use of appliances plugged into power lines continue normally without affecting or being affected by the network transmissions, and vice versa.
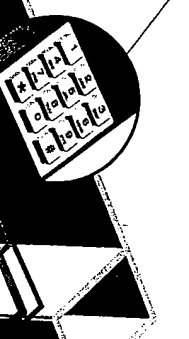
3 Phone line networks have been, initially at least, faster performers than power line LANs. Plans call for phone networks to expand from the current 1 megabit-a-second transmission rate to speeds of at least 10Mbits/sec, putting them in the class as a slow Ethernet. AC networks currently reach a speed limit at 350 kilobits a second. New chips, however, promise to increase power line transmissions to 1 megabit a second. At 1Mbit/sec either network is several times faster than a 56K modem, providing enough bandwidth for several PCs to access the Internet through a single link without affecting each other's performance.

4 Because phone lines are not always in every room of a house, a phone network limits the scope of the LAN. Phone line networks also cannot cross a PBX or connect to a different phone line in the same building. Power lines make a network available throughout a building.

5 Because powerline networks use the same wires as all other electrical devices, it is possible for a personal computer to control other appliances—from air-conditioning to security systems to a home theater—making other appliances, in essence, more nodes on the network.

Electrical line

Phone line

Electrical outlet

Power line network connector

Phone outlet

NETWORK DATA FREQUENCIES
ELECTRICAL CURRENT FREQUENCY

NETWORK DATA FREQUENCIES
PHONE CURRENT FREQUENCY

PBX

Power line bandwidth

Phone line bandwidth

NEW CENTRAL FAX NUMBER
Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to **571-273-8300**. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and **571-273-8300** will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

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